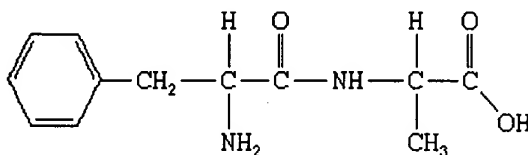


# chemical compound

## Peptides and proteins

### Structure

As mentioned above, peptides are amides derived from two or more amino acids. The amino acids may be the same or different. (The nomenclature and significance of peptides are discussed in the article [protein](#).) The structure below is a dipeptide, phenylalanyl alanine.



Peptides consist primarily of a linear sequence of amino acids, and a specific sequence defines the structure of the peptide. Since there are 20 commonly occurring L-amino acids and each position in a peptide is uniquely defined, the number of possible peptides is very large, even in a relatively short peptide. When the number of amino acid units in the peptide chain equals  $n$ , the number of possible peptides is  $20^n$ . The preparation of a specific peptide sequence and the determination of the sequence of amino acids in a peptide or protein chain require specially adapted chemical methods.

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